Correlation to WNCP Curriculum and Grade 5 Classroom Resources

Note: *Leaps and Bounds 5/6 is a math intervention resource and therefore does not include new content and concepts being introduced to students for the first time in Grade 6. Leaps and Bounds includes content from Grades 3 to 5 that will prepare students who are struggling for work at the Grade 5 or 6 level.*

GRADE 5 Core Resources - Correlation with Grade 5 WNCP core resources			**INTERVENTION Resources and Outcomes** Correlation between *Leaps and Bounds 5/6* and prerequisite outcomes from WNCP Grades 3 and 4.		
Number					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	***Leaps and Bounds 5/6* Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
1. Represent and describe whole numbers to 1 000 000. [C, CN, V, T]	Chapter 2: Lessons 2.1, 2.2, 2.3, 2.5, Curious Maths, Chapter Review	Unit 2, Launch, p. 35; Unit 2, Lesson 1, pp. 36-38; Unit 2, Lesson 2, pp. 40-42; Unit 2, Lesson 3, pp. 43-47	**Representing Whole Numbers** *Pathway 1*: Representing Numbers to 100 000 *Pathway 2*: Representing Numbers to 10 000 *Pathway 3*: Representing Numbers to 1000 *Pathway 4*: Multiplying and Dividing by 10s **Comparing Whole Numbers** *Pathway 1*: Comparing Numbers to 100 000 *Pathway 2*: Comparing Numbers to 10 000 *Pathway 3*: Comparing Numbers to 1000	**1.** Represent and describe whole numbers to 10 000, pictorially and symbolically. [C, CN, V] **2.** Compare and order numbers to 10 000. [C, CN]	**1.** Say the number sequence forward and backward from 0 to 1000 by: • 5s, 10s or 100s using any starting point • 3s using starting points that are multiples of 3 • 4s using starting points that are multiples of 4 • 25s using starting points that are multiples of 25. [C, CN, ME] **2.** Represent and describe numbers to 1000, concretely, pictorially and symbolically. [C, CN, V] **3.** Compare and order numbers to 1000. [CN, R, V] **4.** Estimate quantities less than 1000 using referents. [ME, PS, R, V] **5.** Illustrate, concretely and pictorially, the meaning of place value for numerals to 1000. [C, CN, R, V]

Number					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
2. Use estimation strategies including: • front-end rounding • compensation • compatible numbers in problem-solving contexts. [C, CN, ME, PS, R, V]	Chapter 2: Lessons 2.4, 2.5, 2.9, Curious Math (Keep on Doubling), Chapter Review Chapter 3: Lessons 3.1, 3.2, 3.3, 3.8, Math Game, Chapter Review Chapter 6: Lessons 6.7, 6.11, Math Game, Chapter Review, Chapter Task Chapter 9: Lessons 9.4, 9.7, 9.8, Chapter Review, Chapter Task	Unit 2, Lesson 4, pp. 48-52; Unit 2, Lesson 5, pp. 53-56; Unit 2, Lesson 6, pp. 57-59; Unit 2, Lesson 7, pp. 60-63; Unit 2, Lesson 8, pp. 64, 65; Unit 2, Unit Problem, pp. 68, 69; Unit 3, Lesson 4, pp. 84-87; Unit 3, Lesson 7, pp. 97-99	**Adding and Subtracting** *Pathway 1*: Different Numbers of Digits *Pathway 2*: Same Number of Digits *Pathway 3*: Using Mental Math to Subtract *Pathway 4*: Using Mental Math to Add **Relating Situations to Operations** *Pathway 3*: Subtraction Situations	**3.** Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3 and 4-digit numerals) by: • using personal strategies for adding and subtracting • estimating sums and differences • solving problems involving addition and subtraction. [C, CN, ME, PS, R] **4.** Explain the properties of 0 and 1 for multiplication, and the property of 1 for division. [C, CN, R] **5.** Describe and apply mental mathematics strategies, such as: • skip counting from a known fact • using doubling or halving • using doubling or halving and adding or subtracting one more group • using patterns in the 9s facts • using repeated doubling to determine basic multiplication facts to 9 × 9 and related division facts. [C, CN, ME, PS, R]	**6.** Describe and apply mental mathematics strategies for adding two 2-digit numerals, such as: • adding from left to right • taking one addend to the nearest multiple of ten and then compensating • using doubles. [C, ME, PS, R, V] **7.** Describe and apply mental mathematics strategies for subtracting two 2-digit numerals, such as: • taking the subtrahend to the nearest multiple of ten and then compensating • thinking of addition • using doubles. [C, ME, PS, R, V] **8.** Apply estimation strategies to predict sums and differences of two 2-digit numerals in a problem solving context. [C, ME, PS, R] **9.** Demonstrate an understanding of addition and subtraction of numbers with answers to 1000 (limited to 1, 2 and 3-digit numerals) by: • using personal strategies for adding and subtracting with and without the support of manipulatives • creating and solving problems in contexts that involve addition and subtraction of numbers concretely, pictorially and symbolically. [C, CN, ME, PS, R] **10.** Apply mental mathematics strategies and number properties, such as: • using doubles • making 10 • using the commutative property • using the property of zero • thinking addition for subtraction to recall basic addition facts to 18 and related subtraction facts. [C, CN, ME, R, V]

Number					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
3. Apply mental mathematics strategies and number properties, such as: • skip counting from a known fact • using doubling or halving • using patterns in the 9s facts • using repeated doubling or halving to determine answers for basic multiplication facts to 81 and related division facts. [C, CN, ME, R, V] **4.** Apply mental mathematics strategies for multiplication, such as: • annexing then adding zero • halving and doubling • using the distributive property. [C, ME, R] **5.** Demonstrate an understanding of multiplication (2-digit by 2-digit) to solve problems. [C, CN, PS, V] **6.** Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1-digit) and interpret remainders to solve problems. [C, CN, PS]	Chapter 6 Chapter 9	Unit 3 Unit 5, Lesson 9, pp. 194-196	**Multiplying Whole Numbers** *Pathway 1*: Multiplying Two-Digit Numbers *Pathway 2*: Multiplying by One-Digit Numbers *Pathway 3*: Multiplication Fact Strategies **Dividing Whole Numbers** *Pathway 1*: Dividing Three-Digit Numbers *Pathway 2*: Dividing Two-Digit Numbers *Pathway 3*: Division Fact Strategies **Relating Situations to Operations** *Pathway 1*: Division Situations *Pathway 2*: Multiplication Situations	**6.** Demonstrate an understanding of multiplication (2-or 3-digit by 1-digit) to solve problems by: • using personal strategies for multiplication with and without concrete materials • using arrays to represent multiplication • connecting concrete representations to symbolic representations • estimating products. [C, CN, ME, PS, R, V] **7.** Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by: • using personal strategies for dividing with and without concrete materials • estimating quotients • relating division to multiplication. [C, CN, ME, PS, R, V]	**11.** Demonstrate an understanding of multiplication to 5 × 5 by: • representing and explaining multiplication using equal grouping and arrays • creating and solving problems in context that involve multiplication • modelling multiplication using concrete and visual representations, and recording the process symbolically • relating multiplication to repeated addition • relating multiplication to division. [C, CN, PS, R] **12.** Demonstrate an understanding of division by: • representing and explaining division using equal sharing and equal grouping • creating and solving problems in context that involve equal sharing and equal grouping • modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically • relating division to repeated subtraction • relating division to multiplication. (limited to division related to multiplication facts up to 5 × 5) [C, CN, PS, R]

Number					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
7. Demonstrate an understanding of fractions by using concrete and pictorial representations to: • create sets of equivalent fractions • compare fractions with like and unlike denominators. [C, CN, PS, R, V]	Chapter 7: Lessons 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, Curious Math, Math Games, Chapter Review, Chapter Task	Unit 5, Lesson 1, pp. 166-169; Unit 5, Lesson 2, pp. 170-173; Unit 5, Lesson 3, pp. 174, 175	**Representing Fractions** *Pathway 3*: Proper Fractions: Parts of Sets *Pathway 4*: Proper Fractions: Parts of Wholes **Comparing Fractions** *Pathway 2*: Equivalent Fractions *Pathway 3*: Comparing: Same Numerators *Pathway 4*: Comparing: Same Denominators *Pathway 5*: Comparing Fractions to ½ and 1	**8.** Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to: • name and record fractions for the parts of a whole or a set • compare and order fractions • model and explain that for different wholes, two identical fractions may not represent the same quantity • provide examples of where fractions are used. [C, CN, PS, R, V]	**13.** Demonstrate an understanding of fractions by: • explaining that a fraction represents a part of a whole • describing situations in which fractions are used • comparing fractions of the same whole with like denominators [C, CN, ME, R, V]
8. Describe and represent decimals (tenths, hundredths, thousandths) concretely, pictorially and symbolically. [C, CN, R, V] **9.** Relate decimals to fractions (to thousandths) [CN, R, V] **10.** Compare and order decimals (to thousandths) by using: • benchmarks • place value • equivalent decimals. [CN, R, V]	Chapter 2: Lessons 2.6, 2.7, 2.8, 2.9, 2.10, Math Game, Chapter Review Chapter 7: Lessons 7.6, 7.7, 7.8, Math Game, Chapter Review	Unit 5, Lesson 4, pp. 176-179; Unit 5, Lesson 5, pp. 180-182; Unit 5, Lesson 6, pp. 183-186; Unit 5, Lesson 7, pp. 187-190 Unit 5, Lesson 8, pp. 191-193	**Representing Decimals** *Pathway 1*: Representing Thousandths *Pathway 2*: Representing Hundredths *Pathway 3*: Representing Tenths **Comparing Decimals** *Pathway 1*: Comparing Mixed Decimals *Pathway 2*: Comparing Thousandths *Pathway 3*: Comparing Tenths and Hundredths	**9.** Describe and represent decimals (tenths and hundredths) concretely, pictorially and symbolically. [C, CN, R, V] **10.** Relate decimals to fractions (to hundredths). [CN, R, V]	

Number					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
11. Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths). [C, CN, PS, R, V]	Chapter 3: Lessons 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, Curious Math, Math Game, Chapter Review, Chapter Task	Unit 5, Lesson 10, pp. 197-199; Unit 5, Lesson 11, pp. 200-203; Unit 5, Lesson 12, pp. 205-209; Unit 5, Lesson 13, pp. 211-215	**Decimal Computation** *Pathway 1*: Multiply and Divide by 10 or 100 *Pathway 2*: Add and Subtract to Thousandths *Pathway 3*: Add and Subtract Thousandths *Pathway 4*: Add and Subtract to Hundredths *Pathway 5*: Add and Subtract Tenths or Hundredths	**11.** Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by: • using compatible numbers • estimating sums and differences • using mental math strategies to solve problems. [C, ME, PS, R, V]	
Patterns and Relations: Patterns					
1. Determine the pattern rule to make predictions about subsequent elements. [C, CN, PS, R, V]	Chapter 1: Lessons 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, Curious Math, Chapter Review, Chapter Task	Unit 1, Launch, pp. 4, 5; Unit 1, Lesson 1, pp. 6-8; Unit 1, Lesson 2, pp. 9-12; Unit 1, Lesson 3, pp. 13-16; Unit 1, Lesson 4, pp. 18, 19	**Patterns** *Pathway 1*: Using Pattern Rules *Pathway 2*: Growing and Shrinking Patterns	**1.** Identify and describe patterns found in tables and charts, including a multiplication chart. [C, CN, PS, V] **2.** Reproduce a pattern shown in a table or chart using concrete materials. [C, CN, V] **3.** Represent and describe patterns and relationships using charts and tables to solve problems. [C, CN, PS, R, V]	**1.** Demonstrate an understanding of increasing patterns by: • describing • extending • comparing • creating patterns using manipulatives, diagrams, sounds and actions (numbers to 1000). [C, CN, PS, R, V] **2.** Demonstrate an understanding of decreasing patterns by: • describing • extending • comparing • creating patterns using manipulatives, diagrams, sounds and actions (numbers to 1000). [C, CN, PS, R, V]

Variables and Equations					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
2. Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions. [C, CN, PS, R]	Chapter 1: Lessons 1.7, 1.8, Math Game, Chapter Review, Chapter Task Chapter 3: Lessons 3.3, 3.4	Unit 1, Lesson 5, pp. 20-22; Unit 1, Lesson 6, pp. 23-25; Unit 1, Lesson 7, pp. 26-28	**Equality** *Pathway 1*: Using Algebra *Pathway 2*: Solving Equations	**4.** Identify and explain mathematical relationships using charts and diagrams to solve problems. [CN, PS, R, V] **5.** Express a given problem as an equation in which a symbol is used to represent an unknown number. [CN, PS, R] **6.** Solve one-step equations involving a symbol to represent an unknown number. [C, CN, PS, R, V]	**3.** Solve one-step addition and subtraction equations involving symbols representing an unknown number. [C, CN, PS, R, V]
Shape and Space: Measurement					
1. Design and construct different rectangles given either perimeter or area, or both (whole numbers) and draw conclusions. [C, CN, PS, R, V] **2.** Demonstrate an understanding of measuring length (mm) by: • selecting and justifying referents for the unit mm • modelling and describing the relationship between mm and cm units, and between mm and m units. [C, CN, ME, PS, R, V]	Chapter 8: Lessons 8.1, 8.2, 8.3, 8.4, Curious Math, Chapter Review, Chapter Task	Unit 4, Lesson 1, pp. 122-125; Unit 4, Lesson 2, pp. 126, 127; Unit 4, Lesson 3, pp. 128-130; Unit 4, Lesson 4, pp. 132-134 Unit 5, Lesson 8, pp. 191-193	**Length** *Pathway 1*: Perimeter of a Rectangle *Pathway 2*: Perimeter: Using Standard Units *Pathway 3*: Length: Using Standard Units **Area** *Pathway 1*: Area of a Rectangle *Pathway 2*: Using Standard Units of Area	**3.** Demonstrate an understanding of area of regular and irregular 2-D shapes by: • recognizing that area is measured in square units • selecting and justifying referents for the units cm^2 or m^2 • estimating area by using referents for cm^2 or m^2 • determining and recording area (cm^2 or m^2) • constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many different rectangles may have the same area. [C, CN, ME, PS, R, V]	**3.** Demonstrate an understanding of measuring length (cm, m) by: • selecting and justifying referents for the units cm and m • modelling and describing the relationship between the units cm and m • estimating length using referents • measuring and recording length, width and height. [C, CN, ME, PS, R, V] **5.** Demonstrate an understanding of perimeter of regular and irregular shapes by: • estimating perimeter using referents for centimetre or metre • measuring and recording perimeter (cm, m) • constructing different shapes for a given perimeter (cm, m) to demonstrate that many shapes are possible for a perimeter. [C, ME, PS, R, V]

Variables and Equations					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
3. Demonstrate an understanding of volume by: • selecting and justifying referents for cm^3 or m^3 units • estimating volume by using referents for cm^3 or m^3 • measuring and recording volume (cm^3 or m^3) • constructing rectangular prisms for a given volume. [C, CN, ME, PS, R, V] **4.** Demonstrate an understanding of capacity by: • describing the relationship between mL and L • selecting and justifying referents for mL or L units • estimating capacity by using referents for mL or L • measuring and recording capacity (mL or L). [C, CN, ME, PS, R, V]	Chapter 8: Lessons 8.5, Math Game, 8.6, 8.7, 8.8, 8.9, 8.10, Math Game, Chapter Review, Chapter Task	Unit 4, Lesson 5, pp. 135-137; Unit 4, Lesson 6, pp. 138-141; Unit 4, Lesson 7, pp. 142-144; Unit 4, Lesson 8, pp. 145-147; Unit 4, Lesson 9, pp. 148-150; Unit 4, Lesson 10, pp. 151-154; Unit 4, Lesson 11, pp. 155-157	**Volume and Capacity** *Pathway 1*: Volume Related to Area of Base *Pathway 2*: Relating Volume and Capacity *Pathway 3*: Volume: Cubic Centimetres *Pathway 4*: Capacity: Litres or Millilitres		
			Time *Pathway 1*: Using Elapsed Time *Pathway 2*: Reading a Clock	**1.** Read and record time using digital and analog clocks, including 24-hour clocks. [C, CN, V] **2.** Read and record calendar dates in a variety of formats. [C, V]	**1.** Relate the passage of time to common activities using non-standard and standard units (minutes, hours, days, weeks, months, years). [CN, ME, R] **2.** Relate the number of seconds to a minute, the number of minutes to an hour and the number of days to a month in a problem-solving context. [C, CN, PS, R, V]

Variables and Equations					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
			Mass *Pathway 1*: Mass: Kilograms and Grams *Pathway 2*: Mass: Using One Standard Unit		**4.** Demonstrate an understanding of measuring mass (g, kg) by: • selecting and justifying referents for the units g and kg • modelling and describing the relationship between the units g and kg • estimating mass using referents • measuring and recording mass. [C, CN, ME, PS, R, V]
			Angles *Pathway 1*: Measuring and Drawing Angles *Pathway 2*: Comparing Angles		
3-D Objects and 2-D Shapes					
5. Describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes that are: • parallel • intersecting • perpendicular • vertical • horizontal. [C, CN, R, T, V] **6.** Identify and sort quadrilaterals, including: • rectangles • squares • trapezoids • parallelograms • rhombuses according to their attributes. [C, R, V]	Chapter 11: Lessons 11.1, 11.2, 11.3, 11.4, 11.5, Math Game, Curious Math, Chapter Review, Chapter Task	Unit 6, Lesson 1, pp. 222-225; Unit 6, Lesson 2, pp. 226-229; Unit 6, Lesson 3, pp. 230-233; Unit 6, Lesson 4, pp. 234-239; Unit 6, Lesson 5, pp. 240, 241 Unit 6, Lesson 6, pp. 242-244; Unit 6, Lesson 7, pp. 246-249	**3-D Shapes** *Pathway 1*: Modelling with Nets *Pathway 2*: Modelling with Skeletons *Pathway 3*: Modelling with Solid Shapes **2-D Shapes** *Pathway 1*: Classifying Triangles *Pathway 2*: Classifying Quadrilaterals *Pathway 3*: Line Symmetry	**4.** Describe and construct rectangular and triangular prisms. [C, CN, R, V] **5.** Demonstrate an understanding of line symmetry by: • identifying symmetrical 2-D shapes • creating symmetrical 2-D shapes • drawing one or more lines of symmetry in a 2-D shape. [C, CN, V]	**6.** Describe 3-D objects according to the shape of the faces, and the number of edges and vertices. [C, CN, PS, R, V] **7.** Sort regular and irregular polygons, including: • triangles • quadrilaterals • pentagons • hexagons • octagons according to the number of sides. [C, CN, R, V]

Transformations					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
7. Perform a single transformation (translation, rotation, or reflection) of a 2-D shape (with and without technology) and draw and describe the image. [C, CN, T, V] **8.** Identify a single transformation, including a translation, rotation and reflection of 2-D shapes. [C, T, V]	Chapter 5: Lessons 5.1, 5.2, 5.3, 5.4, 5.5, Math Game, Curious Math, Chapter Review, Chapter Task	Unit 8, Lesson 1, pp. 296-299; Unit 8, Lesson 3, pp. 302-305; Unit 8, Lesson 4, pp. 306-310; Unit 8, Lesson 5, pp. 311-313	**Transformations** *Pathway 1*: Single Rotations *Pathway 2*: Multiple Reflections *Pathway 3*: Multiple Translations *Pathway 4*: Single Reflections and Translations		
			Location and Movement *Pathway 1*: Using Cardinal Directions on Grids *Pathway 2*: Locating Objects on Grids		
Statistics and Probability: Data Analysis					
1. Differentiate between first-hand and second-hand data. [C, R, T, V]	Chapter 4: Lessons 4.1, 4.2, 4.3, Math Game, Chapter Review	Unit 7, Lesson 1, pp. 258-260			
2. Construct and interpret double bar graphs to draw conclusions. [C, PS, R, T, V]	Chapter 4: Lessons 4.4, 4.5, 4.6, Curious Math, Chapter Review	Unit 7, Lesson 2, pp. 261-265; Unit 7, Lesson 3, pp. 266-269; Unit 7, Technology, pp. 270, 271	**Summarizing Data** *Pathway 1*: Data: Using the Mean *Pathway 2*: Data: Using the Median and Mode **Displaying Data** *Pathway 1*: Data: Using Broken-Line Graphs *Pathway 2*: Data: Using Stem-and-Leaf Plots *Pathway 3*: Data: Using Double Bar Graphs *Pathway 4*: Data: Using Line Plots	**1.** Demonstrate an understanding of many-to-one correspondence. [C, R, T, V] **2.** Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions. [C, PS, R, V]	**1.** Collect first-hand data and organize it using: • tally marks • line plots • charts • lists to answer questions. [C, CN, V] **2.** Construct, label and interpret bar graphs to solve problems. [PS, R, V]

Chance and Uncertainty					
Grade 5 WNCP Outcomes	***Math Focus 5***	***Math Makes Sense 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 WNCP Outcomes**	**Grade 3 WNCP Outcomes**
3. Describe the likelihood of a single outcome occurring using words, such as: • impossible • possible • certain. [C, CN, PS, R] **4.** Compare the likelihood of two possible outcomes occurring using words, such as: • less likely • equally likely • more likely. [C, CN, PS, R]	Chapter 10: Lessons 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, Math Game, Curious Math, Chapter Review, Chapter Task	Unit 7, Lesson 4, pp. 272-275; Unit 7, Lesson 6, pp. 280-283	**Probability** *Pathway 1*: Probability: Using Numbers *Pathway 2*: Probability: Using Words		